# 2011-04-05 Tuesday Morning Notes

Monday, April 04, 2011 1:07 PM

## **Stacking and Transfers**

- Stacked 26.7mA/hr with a production of 21.96 pbars/Mp with 8.3 Tp on target.
  - Overnight with \$29-only: 27.0mA/hr with a production of 21.7 pbars/Mp with 8.35 Tp on target.
  - With SY120: 25.7mA/hr with a production of 22.9 Pbars/Mp with 8.33 Tp on target.
- Unstacked 716E10 in 79 transfers over 24 sets with an overall efficiency of 95.6%
  - o Take out transfer 23891 from 163mA and 23902 from 62mA, we get 96.1%

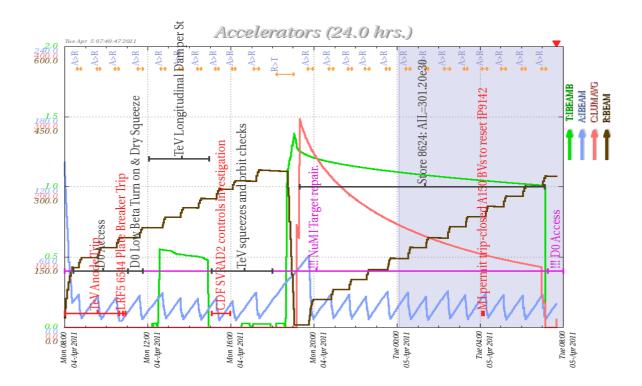
## **Operational happenings**

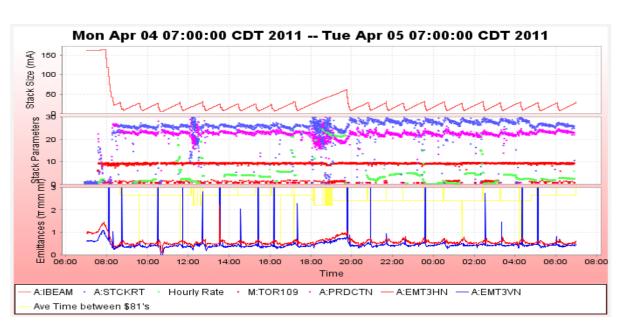
- Modified chilled water temperature regulation script to better handle temperatures when beam is established after a period of downtime.
- The collimator flow meter D:PMWM3 has been coming into alarm. Flow is currently about 3.95 gpm. Normally 4.2 gpm. This meter and one on the lse skid should be changed during some naturally occurring downtime.

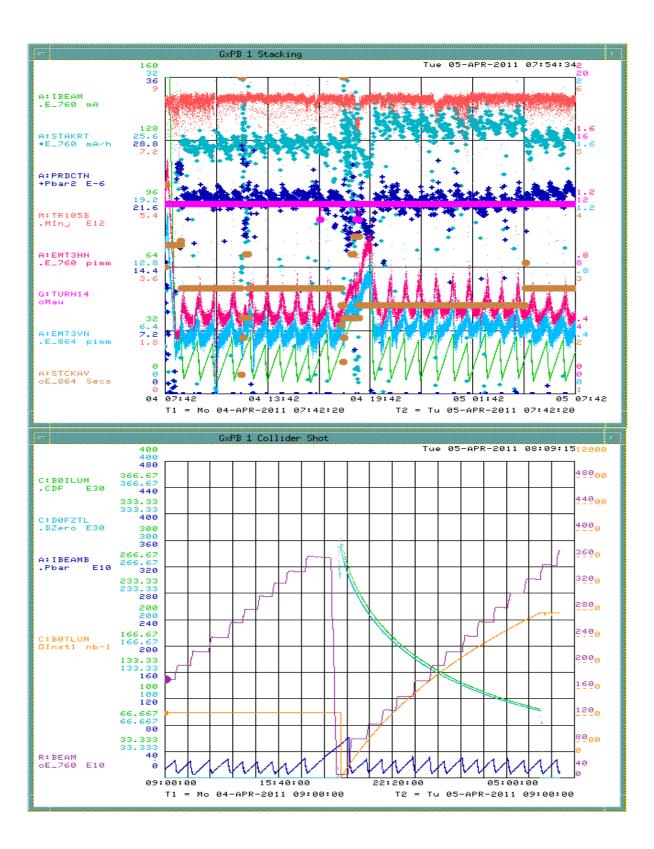
#### **Numbers**

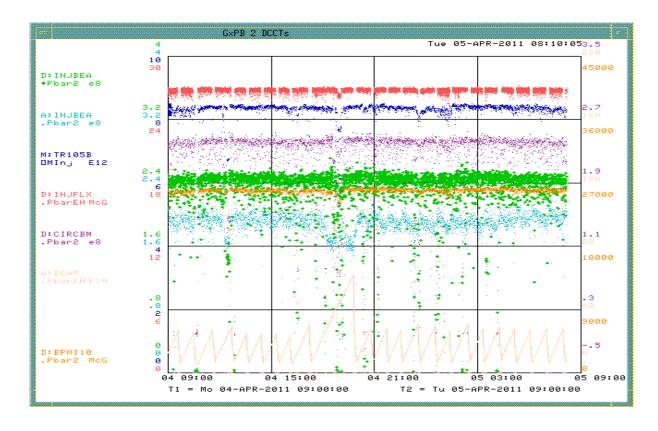
- Stacking
  - Pbars stacked: 581.43 E10Time stacking: 23.73 Hr
  - o Average stacking rate: 24.50 E10/Hr
- Uptime
  - Number of pulses while in stacking mode: 33129
  - Number of pulses with beam: 32101Fraction of up pulses was: 96.90%
- The uptime's effect on the stacking numbers
  - o Corrected time stacking: 23.00 Hr
  - Possible average stacking rate: 25.28 E10/Hr
  - o Could have stacked: 600.05 E10/Hr
- Recycler Transfers
  - o Pbars sent to the Recycler: 684.54 E10
  - Number of transfers : 76
  - Number of transfer sets: 24
  - Average Number of transfer per set: 3.17
  - o Time taken to shoot including reverse proton tuneup: 00.27 Hr
  - o Transfer efficiency: 94.95%
- Other Info
  - Average POT: 8.34 E12
  - Average production: 21.73 pbars/E6 protons

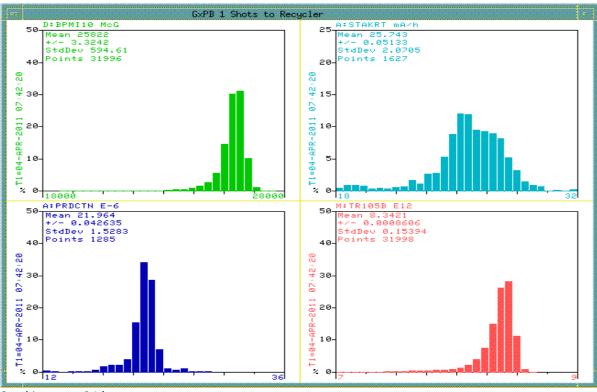
#### **Plots**



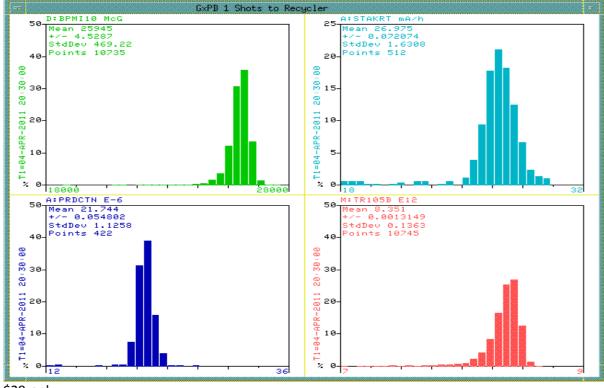




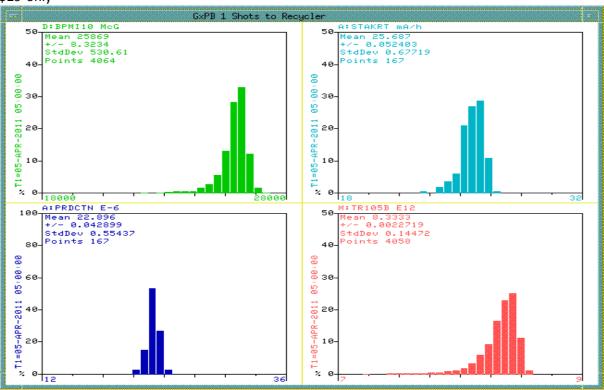




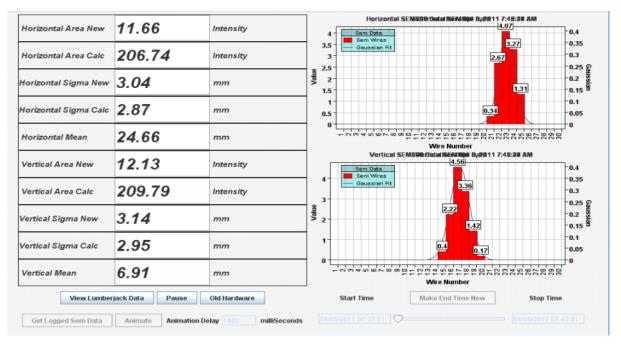
Stacking over 24 hours

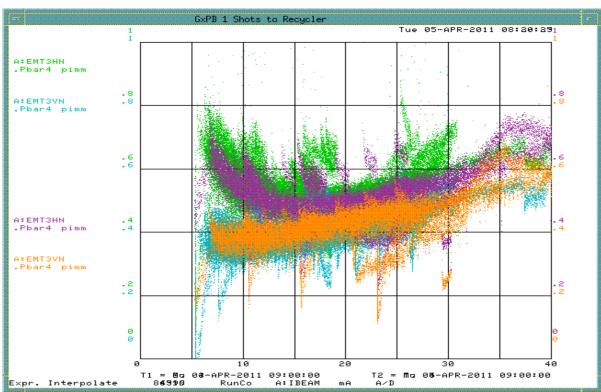


\$29-only

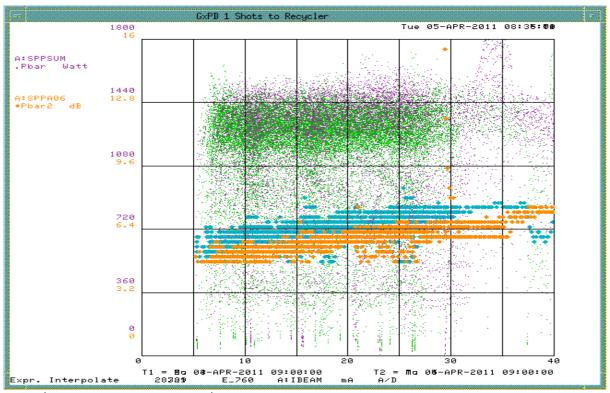


With SY120

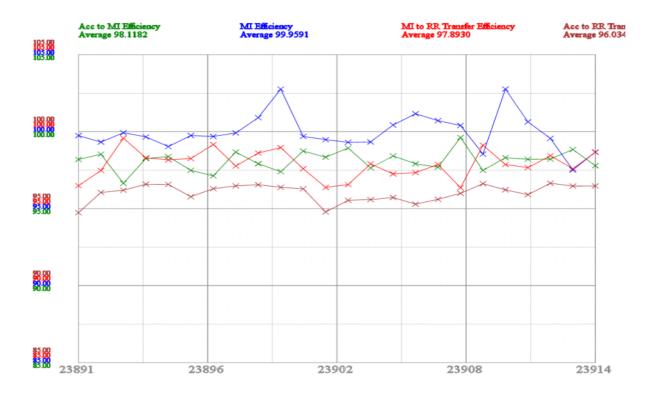




Stack size vs emittance (green/cyan last 24 hours, purple/orange previous 24 hours)



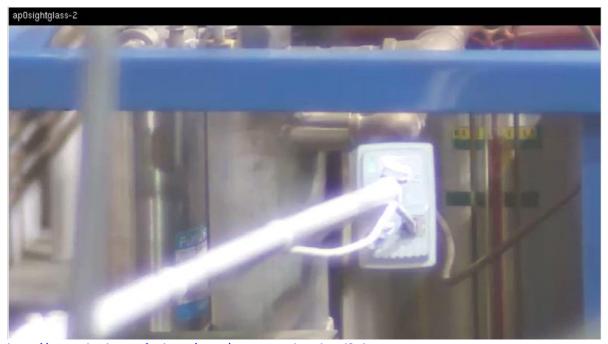
Green/cyan past 24 hours. Purple/orange previous 24 hours



Column 1 Number _0_Pbar Transfer Shot #	Column 4 Number_3_Transfer Tii	21 Number _20_A:I BEAMB sampled on \$91 (A:BEA		Unstacked (mA)	23 Number _22_R:B EAMS (R:BEA	Column 24 Number _23_R:B EAM (R:BEA ME0[1]) post xfer, E10		Ace to RR Eff	Acc to MI Eff	Acc to MI2 Eff	Acc to MI * Acc to MI2 Efficiency	Tran sfers	Sets	5 Number_ 4_Acc Horizont	6 Number _5_Acc Vertical Emittan	Column 8 Number _7_Acc Longitu dinal Emittan ce	
	Totals =>				716.22			684.41	95.56%	98.08%	97.88%	96.01%	79	24	5.7067	4.1594	1.9601
	Daily Average =>	age =>			716.22			684.41					79	24			
23914	Tuesday, April 05, 2011	7:00	28.01	6.41	24.27	300.88	323.71	23.41	96.48%	98.06%	96.25%	94.39%	3	1	5.069	3.88	1.955
23913	Tuesday, April 05, 2011	6:03	27.32	6.55	23.41	279.93	302.13	22.60	96.55%	98.77%	96.94%	95.74%	3	1	5.124	3.921	1.97
23912	Tuesday, April 05, 2011	5:07	27.65	6.29	23.97	258.14	280.84	23.16	96.63%	97.77%	97.42%	95.24%	3	1	5.195	3.942	1.946
23911	Tuesday, April 05, 2011	4:16		7.66	23.74	236.40	258.84	22.79	96.00%	98.48%	98.49%	97.00%	3	1	5.611	4.616	1.967
23910	Tuesday, April 05, 2011	3:17	27.79		23.19	215.11	237.07	22.29	96.15%	98.37%	99.86%	98.23%	3	1	5.486	4.018	1.976
23909	Tuesday, April 05, 2011	2:27	30.98	7.45	25.74	191.15	215.66	24.86	96.58%	97.42%	96.11%	93.63%	3	1	5.597	4.154	1.965
23908	Tuesday, April 05, 2011	1:23		6.30	22.22	170.77	191.73	21.29	95.81%	99.46%	99.40%	98.86%	3	1	6.036	4.206	1.949
23907	Tuesday, April 05, 2011	0:32		6.46	25.44	147.33	171.25	24.30	95.52%	97.67%	97.88%	95.60%	3	_	5.985	4.4	1.95
23906	Monday, April 04, 2011	23:33		6.62	26.05	123.45	147.82	24.78	95.14%	98.14%	99.01%	97.17%	3	1	6.084	4.619	1.938
23905	Monday, April 04, 2011	22:32	27.14	6.69	22.69	102.52	123.85	21.68	95.53%	98.16%	98.74%	96.93%	3	1	6.03	4.529	1.973
23904	Monday, April 04, 2011	21:42	27.99	7.18	23.07	81.15	102.84	22.05	95.55%	98.09%	97.17%	95.31%	3	1	6.053	4.265	1.962
23903	Monday, April 04, 2011	20:50	28.94	7.64	23.53	59.36	81.45	22.43	95.32%	98.91%	97.84%	96.77%	3	1	6.093	4.588	1.978
23902	Monday, April 04, 2011	19:46		6.72	59.21	5.68	59.78	55.71	94.08%	97.82%	97.53%	95.40%	5	1	6.999	5.091	1.917
23901	Monday, April 04, 2011	17:13	_		25.78	312.46	336.62	24.78	96.13%	98.29%	98.30%	96.62%	3	1	5.768	4.279	1.955
23900	Monday, April 04, 2011	16:05	22.49		19.45	295.21	313.56	18.75	96.38%	97.77%	100.29%	98.06%	3	1	5.296	3.664	1.97
23899	Monday, April 04, 2011	15:18		5.85	21.91	275.08	295.85	21.14	96.49%	98.13%	98.57%	96.72%	3	1	5.324	3.654	1.969
23898	Monday, April 04, 2011	14:26		6.31	21.55	255.28	275.70	20.76	96.31%	98.55%	98.99%	97.56%	3	1	5.362	3.723	2.006
23897	Monday, April 04, 2011	13:34		6.34	21.43	235.48	255.77	20.63	96.26%	97.35%	96.75%	94.18%	3	1	5.44	3.82	1.989
23896	Monday, April 04, 2011	12:43	29.67	7.49	24.78	212.78	236.00	23.69	95.60%	97.77%	97.98%	95.79%	3	1	5.791	4.266	1.978
23895	Monday, April 04, 2011	11:36			23.05	191.39	213.34	22.28	96.65%	98.32%	97.38%	95.75%	3	1	5.531	3.927	1.992
23894	Monday, April 04, 2011	10:30			22.60	170.31	191.85	21.79	96.39%	97.96%	97.98%	95.98%	3	_	4.952	3.572	1.965
23893	Monday, April 04, 2011	9:37	27.13		23.13	148.80	170.69	22.23	96.10%	97.35%	97.04%	94.47%	3	1	5.282	3.774	1.99
23892	Monday, April 04, 2011	8:41 7:57		7.52	23.14	127.58	149.33	22.21	96.00%	98.45%	97.33%	95.82%	3	1	5.289	3.839	2.006 1.776
23891	Monday, April 04, 2011	7:57	163.63	21.03	142.87	0.61	128.80	134.81	94.36%	97.98%	97.75%	95.78%	8	1	7.564	5.078	1.776



http://131.225.138.84/view/viewer index.shtml?id=21



http://ap0sightglass-2.fnal.gov/view/viewer\_index.shtml?id=15771

